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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,512

04/13/2004

Kevin E. Dove

GK/57

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GORE ENTERPRISE HOLDINGS, INC.  
551 PAPER MILL ROAD  
P. O. BOX 9206  
NEWARK, DE 19714-9206

EXAMINER

PICKARD, ALISON K

ART UNIT

PAPER NUMBER

3676

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/823,512	<b>Applicant(s)</b> DOVE, KEVIN E.	
	<b>Examiner</b> Alison K. Pickard	<b>Art Unit</b> 3676	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7-60, 64-74 and 76-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-60, 64-74 and 76-82 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7-14, 18, 19, 22, 24-35, 39, 40, 43, 45-47, 49-54, 56-60, 64-68, 71-74, 76-80, and 82 are rejected under 35 U.S.C. 103(a) as being obvious over Mills (5,964,465) in view of Payne (2,173,744) in view of JP '192.

Mills discloses a gasket comprising upper and lower gasket/tape sealing surfaces (e.g. 26, 34). The gasket comprises a porous expanded PTFE tape with a plane of expansion in the x-y direction (plane is parallel to sealing surfaces and leakage, see Fig. 4 for example). The gasket can have a variety of shapes. However, Mills does not appear to specifically state that the tape is wound continuously for at least two windings. Payne teaches a gasket similar to Mills in that it is provided as a strip/tape that can be made in to a variety of shapes such as a continuous circle (see Fig. 4, which is similar to Mill's Fig. 8a) or as a spiral with at least two continuous windings of the tape. These are considered to be known, equivalent shapes for such tape gaskets. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the to form the tape of Mills (which already suggests a variety of shapes can be used) as a spiral wound shape similar to Payne since the use of a known, equivalent method would yield expected results.

Art Unit: 3676

Mills discloses the tape can be coated (col. 4, lines 2-6) but does not appear to state the coating is an air impermeable layer. JP '192 teaches a gasket with alternate layers of ePTFE and an impermeable layer. JP '192 teaches using the impermeable layer 12 between sections of tape to prevent fluid leakage through the tape layers, thus effecting a better seal. JP '192 teaches the method of joining the layers as required by the claims. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the gasket of Mills by using the impermeable layer material between the sections of tape as taught by JP '192 to improve the sealing ability of a gasket using ePTFE.

Regarding claims 8-10, 30-32, 50, 51, 59, neither Mills nor JP '192 appear to disclose the required densities. It is not considered inventive to discover the workable or optimum ranges by routine experimentation absent the showing of criticality for such ranges. See *In re Aller*, 105 USPQ 233, 235 (CCPA 1955). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the claimed densities.

3. Claims 15-17 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of Payne in view of JP '192 as applied to claims above, and further in view of Mortimer.

Mortimer teaches improving properties of an ePTFE tape by using fillers such as those required by the claims (col. 3, line 48-col. 4, line 19). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the tape of Mills by using the filler taught by Mortimer to improve the capacity, conductivity, and strength properties.

Art Unit: 3676

4. Claims 20, 21, 23, 41, 42, 44, 48, 55, 69, 70, and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of Payne in view of JP '192 as applied to claims above, and further in view of Minor (6,485,809).

JP '192 does not appear to disclose other materials that can be used for the impermeable layer. Minor teaches a gasket having an impermeable layer between layers of ePTFE. Minor teaches art equivalent materials such as densified ePTFE (taught in JP '192), FEP, and PFA. It would have been obvious for one of ordinary skill in the art at the time the invention was made to use any of the equivalent materials taught by Minor as the impermeable layer based on suitability, availability or cost.

5. Claims 1-4, 7-14, 18-27, 29-35, 39-60, 64-74, and 76-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills '465 in view of Minor (6,485,809) in view of Payne '744.

Mills discloses a method and gasket comprising upper and lower gasket sealing surfaces (e.g. 26, 34). The gasket comprises a porous expanded PTFE tape with a plane of expansion in the x-y direction (plane is parallel to sealing surfaces and leakage, see Fig. 4 for example). The gasket can have a variety of shapes. Mills discloses the tape can be coated (col. 4, lines 2-6) but does not appear to disclose an air impermeable layer between alternate windings of the tape. Minor teaches a method and gasket having a layer of ePTFE coated with an air impermeable layer 14/13 on all sides (e.g. Figs. 11 and 13) and it can be between two layers of ePTFE (e.g. Fig. 3). The impermeable layer is a fluoropolymer such as PFA or FEP and is applied to the layer of ePTFE and heated with pressure. The layer 13/14 makes the seal impermeable to air and corrosion while still allowing the benefits of using ePTFE for the main body. It would have

Art Unit: 3676

been obvious to one of ordinary skill in the art at the time the invention was made to modify the tape of Mills by coating it with the impermeable layer taught by Minor to improve the gasket.

Both Mills and Minor teach the gasket can be made in any shape but neither specifically state the tapes are wound in a spiral form. Payne teaches equivalent shapes for gaskets comprising two layers/materials 12 and 14. Figure 4 shows a gasket can be made in a typical ring form (similar to Mills and Minor). And, Figure 3 shows an equivalent shape that is a spiral wound gasket. As seen in the figure the main "tape" 12 which is coated with layer 14 is wound continuously for at least two windings such that the layer 14 is between them. Similarly, the coated tape of Mills in view of Minor would be wound such that impermeable layer is between continuous windings of ePTFE. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the gasket to a spiral wound gasket as such is an equivalent shape that is suitable for sealing and would yield expected results.

Regarding claims 8-10, 30-32, 50, 51, 59, neither Mills nor JP '192 appear to disclose the required densities. It is not considered inventive to discover the workable or optimum ranges by routine experimentation absent the showing of criticality for such ranges. See *In re Aller*, 105 USPQ 233, 235 (CCPA 1955). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the claimed densities.

6. Claims 15-17 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mills in view of Minor in view of Payne as applied to claims above, and further in view of Mortimer.

Mortimer teaches improving properties of an ePTFE tape by using fillers such as those required by the claims (col. 3, line 48-col. 4, line 19). Therefore, it would have been obvious for

Art Unit: 3676

one of ordinary skill in the art at the time the invention was made to modify the tape of Mills by using the filler taught by Mortimer to improve the capacity, conductivity, and strength properties.

***Response to Arguments***

7. Applicant's arguments filed 7-19-10 have been fully considered but they are not persuasive.

The rejections have been maintained. The first combination (Mills/Payne/JP' 744) has been modified slightly though to make the teachings being applied a little clearer. With both rejections, Mills is considered to disclose a majority of the claimed structure including the tape layers and sealing surfaces in their claimed expansion planes. Mills also clearly discloses this tape can be provided in any shape with the tapes in that plane. Mills also notes that the tape can be coated. Payne is a similar gasket that is provided as a coated tape that can also be made into a variety of shapes. Payne shows a single loop and spiral gasket are known shapes for such tapes and forming Mills as a spiral is therefore considered obvious.

Applicant has argued that JP '744 does not teach a spiral or the layer on the correct surface. This is unpersuasive. JP '744 teaches an air impermeable layer between two sections of tape to improve the sealing ability the gasket. As stated above, the layers of Mills (in view of Payne) would already be oriented correctly and the side surfaces would be the portions abutting, and thus coated, between the sections. Minor teaches coating all of a similar gasket tape as well as an additional barrier 13 between two sections. Either teaching would yield the air impermeable layer in the claimed location.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed

Art Unit: 3676

invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). As set forth above, the combination of teachings of the applied prior art are considered to make the claimed invention obvious.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alison K. Pickard whose telephone number is 571-272-7062. The examiner can normally be reached on M-F (9-5).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shane Bomar can be reached on 571-272-7026. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alison K. Pickard/  
Primary Examiner, Art Unit 3676